(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 May 2001 (25.05.2001)

PCT

(10) International Publication Number
WO 01/37159 A1

(51) International Patent Classification[7]: G06F 17/60

(21) International Application Number: PCT/KR00/01303

(22) International Filing Date:
14 November 2000 (14.11.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1999/51628 19 November 1999 (19.11.1999) KR
2000/14340 21 March 2000 (21.03.2000) KR

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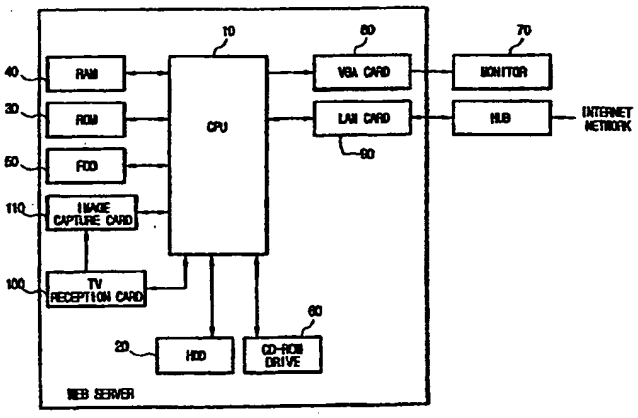
(81) Designated States *(national)*: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, ID, IL, IN, IS, JP, KP, LU, MX, NO, NZ, PT, RU, SE, SG, TR, US, VN, ZA.

(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

Published:
— *With international search report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: WEB SERVER WITH BROADCAST CHANNEL LINK FUNCTION AND AUDIENCE RATING ANALYSIS FUNCTION



(57) Abstract: The present invention relates to a web server with a broadcast channel link function and an audience rating analysis function, wherein the web server provides information for broadcast channel links to an Internet access unit which supports a channel link function, analyzes actual and potential audience ratings, and correlation thereof according to TV-view information and TV program reservation information of a user inputted through the computer network, so as to present diverse research data related to the audience ratings. The web server of the invention includes a CPU (10) for controlling the entire web server system and system operations, a Hard Disk Drive (HDD) (20) for storing general software programs such as OS (Operating System), a ROM (30) for storing a BIOS (Basic Input Output System) program, a RAM (40) for temporarily storing data required for the execution of programs, a FDD (Floppy Disk Drive) (50) for reading from and writing into a floppy disk, CD-ROM drive (60) for reading from and writing into a CD-ROM, VGA, (Video Graphics Array) (80) for processing image data and outputting the image data to the monitor (70), a LAN card (90) which is an Internet access unit, a TV reception card (100) having a tuner for receiving TV broadcasts and an image capture card (110) for capturing the images received by the TV reception card (100).

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WEB SERVER WITH BROADCAST CHANNEL LINK FUNCTION AND AUDIENCE RATING ANALYSIS FUNCTION

Technical Field

The present invention relates to a broadcast service system, and more particularly to a web server with a broadcast channel link function, wherein the web server provides various kinds of information for broadcast channel links to an Internet access unit which supports channel link function.

Background Art

In recent, there has been a trend to become one network world through communication networks such as the Internet or the like, with the rapid spread of computers.

The services which can be provided by the Internet include E-mail (Electronic mail) services, file-transfer services through FTP (File Transfer Protocol), Telnet services, NewsNet services for exchanging news through News Group, File search services and so on. Also, it is widely prevalent to open web sites with commercial purposes in order to

seek various kinds of advantages with the use of the Internet.

Each web server provides diverse information into web sites, and users can access a desired web site by way of Internet access units which permit Internet communication and can obtain necessary information.

Especially, Internet access units such as an Internet TV, an Internet set-top box, a PC incorporated with TV reception card and the like, have a function to receive various TV broadcasts (that is, possible to receive general TV broadcasts, cable TV broadcasts, and satellite TV broadcasts according to system configurations of the units) and an Internet communication function. Several Patent Applications on such Internet access units for TV broadcast channel links with the use of the Internet TV or Internet set-top box (Patent Application Nos. 10-1999-32072, 10-1999-33118, 10-1999-35881, 10-1999-35882) had filed with the Korean Industrial Property Office. Accordingly, these Applications propose a web server which provides various kinds of information for broadcast channel links.

Currently, most broadcasting stations sending general TV broadcast signals manage their web sites and provide program information through their web site. Also, cable broadcasts provide information on each channel program through specific channels.

However, such conventional methods provide only program information and have no concept of channel links. Furthermore, these provide the standardized information rather than the information required by each user.

Disclosure of Invention

It is an object of the present invention to provide a web server for broadcast channel links, and a method for providing broadcast information by the web server, wherein the web server provides various kinds of information for channel links to an Internet access unit which can receive a TV broadcast so as to permit channel links. The web server organizes a web page appropriate for a user at the time of transmitting the information for channel links, so as to provide information appropriate for the user.

It is another object of the invention to provide a web server for broadcast channel links, and a method for providing broadcast information by the web server, wherein the web server provides short-cut display function which provides a plurality of user-requested broadcasts in still images on a screen, so as to link and change to a desired channel.

In order to accomplish the object, the present invention provides a web server for broadcast channel links, the web server having an Internet access means so as to provide specified information on Internet web pages through the Internet access means, the web server comprising:

a storage means for storing TV channel service information, basic information for TV broadcast channel links, and user-input information for TV broadcast channel links inputted from a user web browser through the Internet access means; and

a central processing unit for organizing a web page appropriate for the user-input information with the use of the TV channel service information, the basic information for TV broadcast channel links, and the user-input information after receiving user identification information inputted through the Internet access means, and transmitting the web page to the user web browser.

In order to accomplish the object, the present invention provides a method for providing broadcast information by a web server that

supports broadcast channel links, the web server having an Internet access means, and a storage means for storing TV channel service information, basic information for TV broadcast channel links, and user-input information inputted from a user web browser through the Internet access means, organizing a web page presenting TV broadcast information with the use of the TV channel service information stored in the storage means, and transmitting the web page to the user web browser, the method comprising the steps of:

checking user identification information and identifying whether the user has membership;

organizing the web page presenting TV broadcast information corresponding to the user-input information with the TV channel service information, the basic information for TV broadcast channel links, and user-input information of the user identified as having the membership, when it is identified that the user has the membership; and

transmitting the web page to the user web browser.

In order to accomplish the object, the present invention provides a web server for broadcast channel links, the web server having an Internet access means so as to provide specified information on the Internet web pages through the Internet access means, the web server comprising:

a TV broadcast reception means for receiving the TV broadcasts;

an image capture means for capturing the images received by the TV broadcast reception means;

a storage means for storing TV channel service information, basic information for TV broadcast channel links, user-input information inputted from a user web browser through the Internet access means, and information on the image captured by the image capture means; and

a central processing unit for controlling the TV broadcast reception means and the image capture means, organizing a web page with the image information stored in the storage means so that all broadcasts selected by the user in a full screen can be displayed simultaneously in still images on sub-screens divided by the number of the selected channels, and transmitting the web page to the user web browser.

In order to accomplish the object, the present invention provides a method for providing broadcast information by a web server that supports broadcast channel links, the web server including: an Internet access means; a TV broadcast reception means for receiving the TV broadcasts; an image capture means for capturing the images received by the TV broadcast reception means; and a storage means for storing TV channel service information, basic information for TV broadcast channel links, user-input information inputted from a user web browser through the Internet access means, and information on the image captured by the image capture means,

the web server organizing a web page for providing a short-cut display service that shows still images of a number of broadcasts in one full screen at the same time according to the screen information stored in

the storage means, and transmitting the web page to the user web browser, the method comprising the steps of :

1) determining whether the user has accessed a web page which provides the short-cut display service;

2) making the user select broadcast channels which the user want to view in the short-cut in case the user has accessed the web page;

3) organizing the web page for providing the short-cut display service appropriate for the broadcast channel selected by the user, with the image information stored in the storage means according to the broadcast channel information inputted by the user in the step 2); and

4) transmitting the web page to the user web browser.

In the method, the web page in the step 3) includes an icon for TV broadcast channel links with respect to the broadcasts which are viewable in the user system configuration based on the user-input information, and the icon includes information indicating that the icon is used for channel links and channel number information for the corresponding broadcast, in script information.

Brief Description of the Drawings

These and other features, aspects, and advantages of the present invention will help for better understanding with regard to the following description, appended claims, and accompanying drawings, in which like components are referred to by like reference numerals. In the drawings:

FIG. 1 is a block diagram of a web server in accordance with an embodiment of the invention;

FIG. 2 is a flow chart of a method for providing broadcast information by the web server of Fig. 1;

FIG. 3 is a block diagram of a web server in accordance with another embodiment of the invention;

FIG. 4 is a flow chart of a method for providing broadcast information by the web server of Fig. 3;

FIG. 5 is an exemplary screen arrangement of a short-cut function provided by the web server of Fig. 3;

Best Mode for Carrying out the Invention

Hereinafter, preferred embodiments of the present invention will be described in detail with reference to the accompanying drawings.

FIG. 1 shows a block diagram of a web server in accordance with an embodiment of the invention, and the configuration is practically identical with common web servers.

The web server includes a CPU 10 for controlling the entire web server system and executing whole system operations, an HDD (Hard Disk Drive) 20 for storing general software programs such as OS (Operating System) (the web server of the invention utilizes Windows NT, Linux and so on), a ROM (Read Only Memory) 30 for storing a BIOS (Basic Input Output System) program, a RAM (Random Access Memory) 40 for temporarily storing data required for the execution of programs, a FDD (Floppy Disk Drive) 50 for reading from and writing into a floppy disk for exchanging data with external devices, CD-ROM drive 60 for reading from and writing into a CD-ROM, VGA(Video Graphics Array) 80 for processing image data and outputting the image data to the monitor

70, and a LAN card 90 which is an Internet access unit for communication through Internet access. Other components such as ADSL (Asymmetric Digital Subscriber Line) may be used for the LAN card 90 according to the types the Internet network.

The web server of the invention has the same configuration as the general web servers. However in function, the web server stores TV channel service information (which is the channel service information for each TV broadcast such as general TV broadcasts, cable TV broadcasts, satellite TV broadcasts, and also the channel information of each TV broadcast or each channel program information), basic information for TV broadcast channel links (for example, Mapping Table information as described later) or user-input information inputted from a user web browser into the HDD 20. When the user accesses a web site provided by the web server, the web server organizes a web page appropriate for a user system configuration by using the TV channel service information, and the basic information and user-input information for TV broadcast channel links stored in the HDD 20. Then, the web server transmits the web page to the user web browser so as to permit channel link.

The web server has functions as described below for such operations.

1) Storing a resident area and system status of the user

When the user has accessed the web server and fixed the resident area and system setting of the user (the user performs the system setting according to the system setting mode provided by the user web

browser with respect to the information on the various devices connected to the TV, such as TV manufacturer, TV model type, Internet set-top box manufacturer, Internet set-top box model type, peripheral set-top box manufacturer, peripheral set-top box model type and the like), the user web browser transmits information on the resident area and the system setting information of the user to the web server (This information can be transmitted to the web server when the user acquires the membership of the web site). Then, the CPU 10 of the web server receives the information through the Internet access unit LAN card 90 and stores the information to the HDD 20.

The information on the resident area and the system setting of the user stored in the HDD 20 is used for the user-input information in order to organize web pages appropriate for each user when the user wants to change channels later.

2) Storing remote controller codes for various set-top boxes and TVs, and Downloading the codes by the user

The web server stores all remote controller codes of currently used TVs or set-top boxes in the HDD 20. And the web server transmits the remote controller codes of the devices used in the user system to the user web browser upon receiving the system setting information of the user from the user web browser. The user web browser controls required devices using the remote controller codes at the time of channel links.

3) Storing information on a broadcast channel which is being

viewed currently by the user

When a user wants to change the broadcast channel, if the user web browser transmits information on the broadcast channel change, the CPU 10 stores the changed channel number in the HDD 20. As such, the HDD 20 stores the data of TV-view histories for each user.

When the user changes the screen into an Internet mode in order to check the information (title, contents) of the broadcast which is being viewed currently by the user, the user web browser requires the information including the current broadcast channel information from the web server. In this time, the web server organizes a web page with the information on the current broadcast channel information stored in the HDD 20 and transmits the web page to the user web browser.

4) Organizing a web page appropriate for each user.

In these days, the channel number in one region may be set differently from that in another region for the same broadcasting station when re-sending the broadcast signal of the general TV broadcasts and cable TV broadcasts according to the regions.

Accordingly, the channel information in the script information is set so as to be suitable for the resident area of the user when creating an icon for channel links. In addition, the web server organizes a web page appropriate for system of each user in accordance with the user information stored in the function 1), because the broadcast each user can view may be different from others according to the system configurations of the user.

For example, when organizing the web page for the cable TV, the web server inserts an icon for channel links into the web page if the user system includes a cable converter. The web server does not insert the icon for channel links into the web page if the user system does not include the cable converter and organizes the web page with only the information on the broadcast program.

5) Creating script information for channel links and Transmitting the information

When a user has accessed the web site provided by the web server and inputted ID and password, etc, the user web browser transmits the information inputted by the user to the web server. Then, the web server organizes a web page on the basis of the information of the function 1) and transmits the web page to the user web browser.

If the web page to be organized includes the icon for channel links, the script information of the corresponding icon includes the information indicating that the icon is used for channel links and the corresponding broadcast channel number information so as to organize the web page. When the user clicks the icon, the user web browser reads the script information of the icon and executes the operation for the channel links. At this time, the operation is dependent upon the devices used by the user.

6) Reserving the TV broadcast channels

If the user sets TV program reservation information, the user web browser transmits the reservation information to the web server and

stores the reservation information in the HDD 20.

The CPU 10 transmits the channel number information and the information indicating the broadcast start with respect to the reserved broadcast so that the user web browser can change the channel, when it becomes the reserved time, or at the time when the reserved broadcast starts or before predetermined time to the broadcast start.

This function is effective only when the user web browser is operated and has accessed the web site. The web server transmits the information only when the user web browser has accessed the web site after checking whether the user web browser has accessed the web site. In this case, KBPS or G code information can be used for the broadcast start information.

7) Storing mapping tables for each broadcast channel and broadcasting station, and Transmitting the mapping tables

This function is required to perform the function 4). If a channel number is varied according to the regions for the identical broadcasting station, the web server stores the each channel number for the regions with respect to the broadcasting station in a mapping table in the HDD 20 so as to refer to the mapping table when organizing the web page. In this case, the script information transmitted by the web server includes the channel number referred to the mapping table.

In another way, the web server transmits the mapping table to the user web browser such that the user web browser store the mapping table in the user system. Then, the web server transmits the script

information including the broadcasting station name and causes the user web browser to refer to the downloaded mapping table so as to create the channel number for the region.

The web site provided by the web server which supports broadcast channel links with such functions provides basically broadcast channels which can be received by the web site. In addition, when the user clicks a hyperlink, the web server provides detailed information on the corresponding broadcast. Also, the web server provides the function for the user to change to a desired channel while accessing the web site and searching various kinds of information for the broadcast. As shown in Fig. 2 which illustrates a flow chart of a method for providing broadcast information by the web server, the web server executes the steps S101-S104 of identifying whether the user is a member when the user has accessed the web site, organizing a web page appropriate for the user-input information of the user who has been confirmed as being a member, and transmitting the web page to the user web browser, thereby controls the broadcast channel links.

That is, when a user accesses the web site provided by the web server through the web browser, the CPU 10 identifies whether the user is a member with the user identification information. Such identification of a membership is carried out through the ID and Password of a user, as usual. The CPU 10 may include a home page onto which such user identification information is inputted, either inside or outside the CPU 10.

When the user who has accessed the present web site is identified

as a member, the web server can display messages indicating welcome to the web site, information on the basically-provided and categorized recommended broadcast, categorized search windows, user-input windows and the like.

The information on the categorized recommended broadcast is classified by the broadcast characteristics such as education, drama, movie, sports, variety show and so on, and is arranged to show several basically-received broadcast channels.

When the user select any one of these broadcast channels, the web server causes the user web browser to change into the selected broadcast channel if the selected broadcast channel can be viewed in the user system configuration. In addition, the web server is configured to provide more detailed information for the user-desired broadcast.

In case the broadcast channel selected by the user is viewable in the user system configuration, the change to the selected channel is as follows.

The CPU 10 determines whether a broadcast channel is viewable in the user system configuration according to the user system setting information stored in the HDD 20 in accordance with the function 1). When the channel can be viewable in the user system configuration, the CPU 10 inserts an icon for channel links in a web page when organizing the web page in accordance with the function 4). Then, the CPU 10 organizes the web page including the information indicating that the icon is user for channel links and the channel number information of the

broadcast in the script information of the icon. Next, the CPU 10 transmits the web page to the user web browser. Accordingly, when the user clicks the icon, the web browser reads the script information of the icon and performs the channel link operation so as to permit the channel link to the desired channel.

The categorized search windows provide a function to search for the user-desired information. When the user has selected a desired broadcast during the search and selected the broadcast, the CPU 10 determines whether the broadcast channel is viewable in the user system configuration according to the user system setting information stored in the HDD 20 in accordance with the function 1). If the broadcast channel can be viewable in the user system configuration, the CPU 10 inserts an icon for channel links in a web page when organizing the web page in accordance with the function 4). Then, the CPU 10 organizes the web page including the information indicating that the icon is user for channel links and the channel number information of the broadcast in the script information of the icon. Next, the CPU 10 transmits the web page to the user web browser. Accordingly, when the user clicks the icon, the web browser reads the script information of the icon and performs the channel link operation so that the channel link to the desired channel can be carried out.

Fig. 3 shows a block diagram of a web server according to another embodiment of the invention, and the web server is different from the one described above in providing a short-cut function that allows still

images of various broadcasts to be displayed in one full screen.

That is, the function is used for the change of the screen into the desired broadcast channel, when the user views selected several broadcast channels in still images other than in dynamic images and then clicks one desired broadcast. For this purpose, the web server comprises a TV reception card 100 having a tuner for receiving TV broadcasts and an image capture card 110 for capturing the images received by the TV reception card 100 additionally to the web server in Fig. 1.

In relation to the short-cut function, references are made to the system configuration in Fig. 3 and the flow chart in Fig. 4. The web server controls a tuner in the TV reception card for various broadcasts (all broadcasts which are being broadcasted at the moment) in sequence and in a predetermined time period with the TV reception card, and changes the channels. In addition, the web server captures the images by the image capture card and stores the images in the HDD 20.

Also, when the user whose browser has accessed the web server has accessed the web page, the web server can provide a function to display several broadcasts in one screen in still image other than dynamic image because the web server transmits stored images in sequence for the broadcast set by the user.

That is, in the short-cut function, when the user accesses the web page S201 and selects a desired broadcast S202 as shown in the example of Fig. 4, the web server organizes a web page for short-cut display appropriate for the channel information of the broadcast selected

by the user and transmits the web page to the user web browser S203 and S204. Accordingly, the web server allows still images which changes sequentially in a predetermined time period from the left to the right side other than dynamic images to be displayed. Therefore, it is possible to change the channel into the desired broadcast automatically when the user clicks the desired broadcast among such still images.

As described in the above embodiment, the CPU 10 inserts an icon for channel links into a web page [in accordance with the function 4)] at the time of organizing the web page if the selected broadcast is viewable in the user system configuration [determined by the user-input information of the function 1)]. And the CPU 10 inserts the information indicating that the icon is used for channel links and channel number information of the corresponding broadcast so that the user web browser can be changed into the corresponding channel.

The invention as described above has the following effects.

First, when a user who has Internet access units which support TV broadcast channel links accesses a web site provided by the web server, the user can view a desired broadcast more conveniently because it is possible to view the desired broadcast when linked with channels of a TV, PC and other set-top boxes. Also, it is possible to calculate accurately useful statistics such as broadcast audience rating, etc. since the operation states of all system devices can be controlled all the time.

Second, with the short-cut function, users can view several desired broadcast channels at the same time. In addition, it is possible to eliminate the risk of mal-operation by the user, because information on each user's resident is stored and accordingly corresponding web page is organized. Furthermore, the user will not miss the desired programs since the user is notified of the time when the pre-set program starts.

Claims

1. A web server for broadcast channel links, the web server having an Internet access means so as to provide specified information on Internet web pages through the Internet access means, the web server comprising:

a storage means for storing TV channel service information, basic information for TV broadcast channel links, and user-input information for TV broadcast channel links inputted from a user web browser through the Internet access means; and

a central processing unit for organizing a web page appropriate for the user-input information by using the TV channel service information, the basic information for TV broadcast channel links, and the user-input information after receiving user identification information inputted through the Internet access means, and transmitting the web page to the user web browser.

2. The web server for broadcast channel links as claimed in claim 1, wherein the TV channel service information includes channel information on general TV broadcasts, cable TV broadcasts and satellite TV broadcasts, and program information for respective broadcast channels.

3. The web server for broadcast channel links as claimed in

claim 1, wherein the basic information for TV broadcast channel links includes mapping table information for broadcasting company names and corresponding actual channel numbers.

4. The web server for broadcast channel links as claimed in claim 1, wherein the user-input information for TV broadcast channel links includes information on resident area and system setting of a user.

5. The web server for broadcast channel links as claimed in claim 4, wherein the system setting information of the user includes information of user's TV and various components connected to the user's TV.

6. The web server for broadcast channel links as claimed in claim 1, wherein the user-input information for TV broadcast channel links includes broadcast channel information, the broadcast being viewed by the user at the moment.

7. The web server for broadcast channel links as claimed in claim 6, wherein the central processing unit organizes the web page with the program information (title, contents) corresponding to the broadcast channel information as the user-input information for TV broadcast channel links, the broadcast being viewed by the user at the moment, when the user requests the information of the broadcast which is being

viewed by the user through the web browser.

8. The web server for broadcast channel links as claimed in claim 1, wherein the user-input information for TV broadcast channel links includes TV program reservation information of the user.

9. The web server for broadcast channel links as claimed in claim 8, wherein the central processing unit transmits the channel number information and broadcast start information of the corresponding broadcast to the user web browser, before a predetermined time to a starting time of the reserved broadcast program included in the TV program reservation information of the user.

10. The web server for broadcast channel links as claimed in claim 1, wherein the web page includes information on recommended broadcasts and a user-search window.

11. The web server for broadcast channel links as claimed in claim 10, wherein the information on the recommended broadcasts and the user-search window are classified in categories according to the characteristics of the programs.

12. The web server for broadcast channel links as claimed in claim 1, wherein the central processing unit includes an icon for TV

broadcast channel links on the web page with respect to the broadcasts which are capable of being viewed in the user system configuration based on the user-input information for TV broadcast channel links, when organizing the web page.

13. The web server for broadcast channel links as claimed in claim 12, wherein the icon includes information indicating that the icon is used for channel links and channel number information for the corresponding broadcast, in script information.

14. The web server for broadcast channel links as claimed in claim 13, wherein the channel number information is set to be appropriate for the resident area of the user.

15. A method for providing broadcast information by a web server that supports broadcast channel links, the web server having an Internet access means, and a storage means for storing TV channel service information, basic information for TV broadcast channel links, and user-input information inputted from a user web browser through the Internet access means, the web server organizing a web page presenting TV broadcast information with the use of the TV channel service information stored in the storage means, and transmitting the web page to the user web browser, the method comprising the steps of :

checking user identification information and identifying whether

the user has membership;

organizing the web page presenting TV broadcast information corresponding to the user-input information with the TV channel service information, the basic information for TV broadcast channel links, and user-input information of the user identified as having the membership, when it is identified that the user has the membership; and

transmitting the web page to the user web browser.

16. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in claim 15, wherein the web page includes information on recommended broadcasts and a user-search window when organizing in the web page.

17. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in claim 16, wherein the information on the recommended broadcasts and the user-search window are classified in categories according to the characteristics of the programs.

18. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in claim 15, wherein the web page includes an icon for TV broadcast channel links on the web page with respect to the broadcasts which are capable of being viewed in the user system configuration based on the user-input

information, when organizing the web page.

19. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in claim 18, wherein the icon includes information indicating that the icon is used for channel links and channel number information for the corresponding broadcast, in script information.

20. A web server for broadcast channel links, the web server having an Internet access means so as to provide specified information on the Internet web pages through the Internet access means, the web server comprising:

a TV broadcast reception means for receiving the TV broadcasts;

an image capture means for capturing the images received by the TV broadcast reception means;

a storage means for storing TV channel service information, basic information for TV broadcast channel links, user-input information inputted from a user web browser through the Internet access means, and information on the image captured by the image capture means; and

a central processing unit for controlling the TV broadcast reception means and the image capture means, organizing a web page with the image information stored in the storage means so that all broadcasts selected by the user in a full screen can be displayed simultaneously in still images on sub-screens divided by the number of

the selected channels, and transmitting the web page to the user web browser.

21. The web server for broadcast channel links as claimed in claim 20, wherein the basic information for TV broadcast channel links includes mapping table information for broadcasting company names and corresponding actual channel numbers, and the user-input information for TV broadcast channel links includes information on a resident area and system setting of the user.

22. The web server for broadcast channel links as claimed in claim 20, wherein the central processing unit organizes the web page so that the screen is divided by a corresponding number of the broadcasts selected by the user in one-to-one.

23. The web server for broadcast channel links as claimed in claim 20, wherein the central processing unit organizes the web page so as to transmit sequentially the image information stored in the storage means to each divided sub-screen with respect to the broadcast selected by the user.

24. The web server for broadcast channel links as claimed in claim 20, wherein the central processing unit includes an icon for TV broadcast channel links on the web page with respect to the broadcasts

which are capable of being viewed by the user at the moment according to the user-input information for TV broadcast channel links, when organizing the web page.

25. The web server for broadcast channel links as claimed in claim 24, wherein the icon includes information indicating that the icon is used for channel links and channel number information for the corresponding broadcast, in script information.

26. A method for providing broadcast information by a web server that supports broadcast channel links, the web server including: an Internet access means; a TV broadcast reception means for receiving the TV broadcasts; an image capture means for capturing the images received by the TV broadcast reception means; and a storage means for storing TV channel service information, basic information for TV broadcast channel links, user-input information inputted from a user web browser through the Internet access means, and information on the image captured by the image capture means, the web server organizing a web page for providing a short-cut display service that shows still images of a number of broadcasts in one full screen at the same time according to the screen information stored in the storage means, and transmitting the web page to the user web browser, the method comprising the steps of :

1) determining whether the user has accessed a web page which

provides the short-cut display service;

2) making the user select broadcast channels which the user want to view in the short-cut in case the user has accessed the web page;

3) organizing the web page for providing the short-cut display service appropriate for the broadcast channel selected by the user, with the image information stored in the storage means according to the broadcast channel information inputted by the user in the step 2); and

4) transmitting the web page to the user web browser.

27. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in the claim 26, wherein the web page in the step 3) includes an icon for TV broadcast channel links with respect to the broadcasts which are viewable in the user system configuration based on the user-input information.

28. The method for providing broadcast information by a web server that supports broadcast channel links as claimed in the claim 27, wherein the icon includes information indicating that the icon is used for channel links and channel number information for the corresponding broadcast, in script information.

FIG. 1

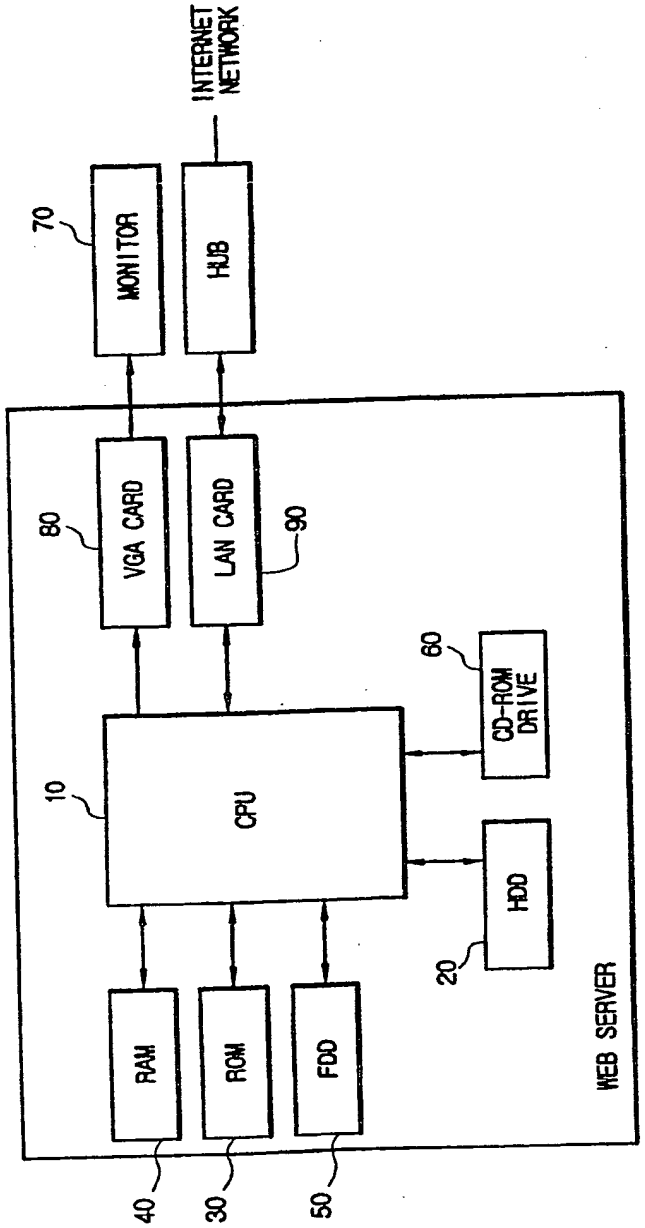
INTERNET NETWORK
70
MONITOR
HUB
80
VGA CARD
LAN CARD
90
60
CD-ROM DRIVE
10
CPU
HDD
20
RAM
ROM
FDD
WEB SERVER
40
30
50

FIG. 2

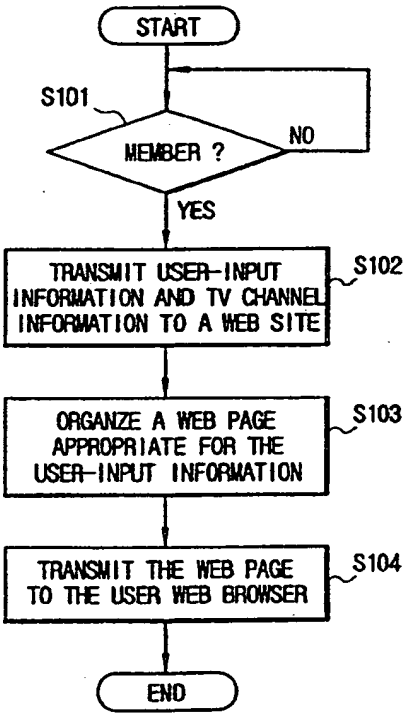
START
S101
MEMBER ?
NO
YES
TRANSMIT USER-INPUT INFORMATION AND TV CHANNEL INFORMATION TO A WEB SITE
S102
ORGANZE A WEB PAGE APPROPRIATE FOR THE USER-INPUT INFORMATION
S103
TRANSMIT THE WEB PAGE TO THE USER WEB BROWSER
S104
END

FIG. 3

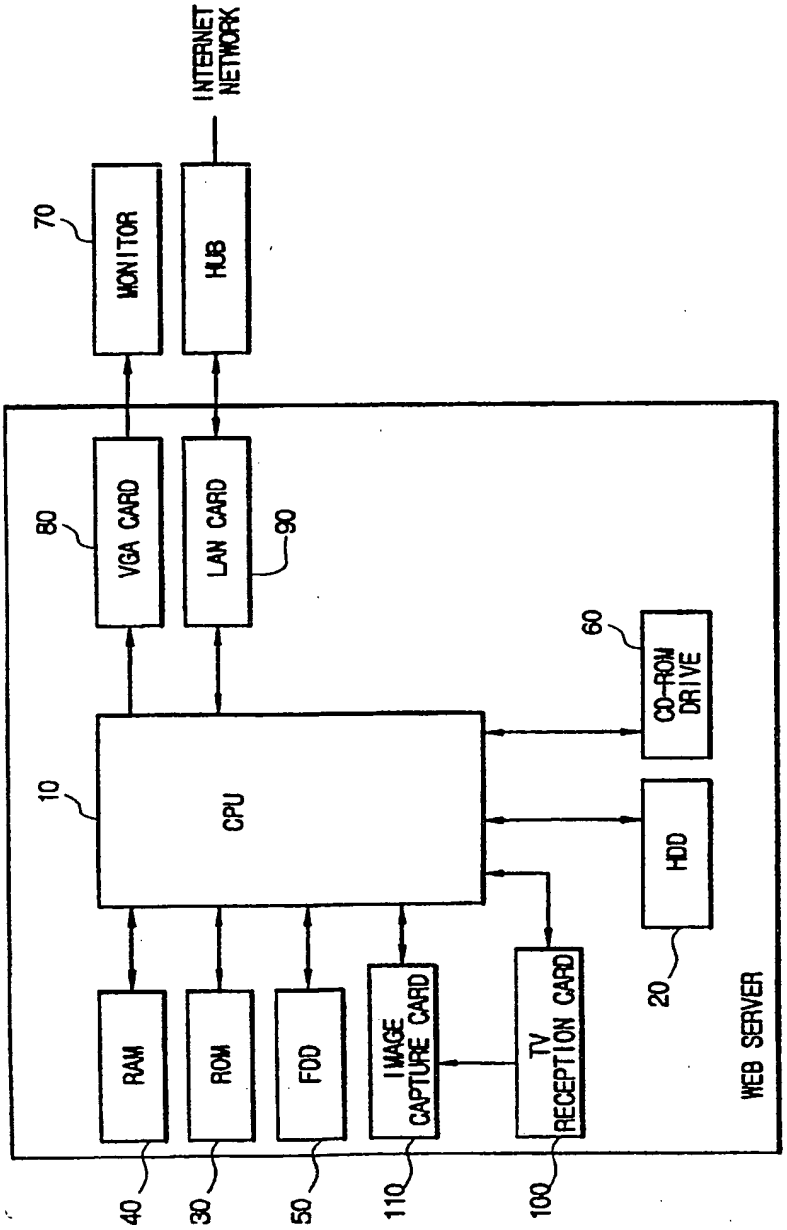
INTERNET NETWORK
70
MONITOR
HUB
80
VGA CARD
LAN CARD
90
60
CD-ROM DRIVE
10
CPU
HDD
20
RAM
ROM
FDD
IMAGE CAPTURE CARD
TV RECEPTION CARD
WEB SERVER
40
30
50
110
100

FIG. 4

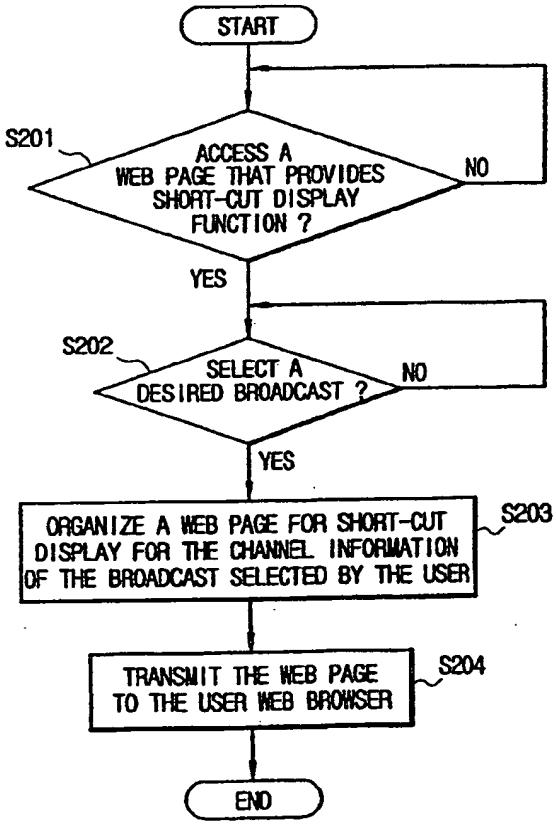
START
S201
ACCESS A WEB PAGE THAT PROVIDES SHORT-CUT DISPLAY FUNCTION ?
NO
YES
S202
SELECT A DESIRED BROADCAST ?
NO
YES
ORGANIZE A WEB PAGE FOR SHORT-CUT DISPLAY FOR THE CHANNEL INFORMATION OF THE BROADCAST SELECTED BY THE USER
S203
TRANSMIT THE WEB PAGE TO THE USER WEB BROWSER
S204
END

FIG. 5